ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

Enter XX or Calendar Date

Mr. Ronald Walls
Plant Manager
Georgia-Pacific Chemicals LLC - Conway
Post Office Box 368
Conway, North Carolina 27820

SUBJECT: Air Quality Permit No. 04243T25
Facility ID: 6600016
Georgia-Pacific Chemicals LLC - Conway
Conway, Northampton County, North Carolina
Fee Class: Title V
PSD Class: Major

Dear Mr. Walls:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit received on June 29, 2017, we are forwarding herewith Air Quality Permit No. 04243T25 to Georgia-Pacific Chemicals LLC, 220 Ampac Road, Conway, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Northampton County has not triggered increment tracking under PSD for any pollutants, so no tracking is required.

This Air Quality Permit shall be effective from ***(Enter Permit Issuance Date)*** until ***(Enter Permit Expiration Date)***, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Crump at (919) 707-8740, Eric.Crump@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Raleigh Regional Office
Connie Horne (Cover letter only)
Central Files

ATTACHMENT to Permit No. 04243T25

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
I-FL	Formaldehyde loading operations – East Load Rack
I-HTF	Natural gas/propane-fired heat transfer fluid heater (2.3 million Btu per hour maximum heat input rate)
I-CF	Resin loading operations - Container loading
I-RUR	Resin unloading rack No. 7
I-D	Diesel fuel dispenser rack
I-MU	Methanol/formaldehyde unloading
I-SD1	Truck unloading of spray dry material
I-RU1	Granular urea railcar screw conveyor unloading
I-DP	Solid resins drying pad
I-PH1	Propane-fired startup heater (0.23 million Btu per hour maximum heat input rate)
I-PH2	Propane-fired startup heater (0.23 million Btu per hour maximum heat input rate)
I-PH3	Propane-fired startup heater (0.23 million Btu per hour maximum heat input rate)
I-H1	Process water tank (12,500 gallon capacity)
ICT-1	PF resin tank (27,663 gallon capacity)
ICT-2	PF resin tank (27,663 gallon capacity)
ISD-1	PF resin tank (27,663 gallon capacity)
ISD-2	PF resin tank (27,663 gallon capacity)
I-P1	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P2	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P3	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P4	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P5	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P6	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P7	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P8	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P9	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P10	PF RESI-MIX resin tank (25,908 gallon capacity)
I-P11	PF RESI-MIX Resin tank (25,908 gallon capacity)
I-P12	PF RESI-MIX Resin tank (25,908 gallon capacity)
I-P13	PF resin tank (22,669 gallon capacity)
I-P14	PF resin tank (22,669 gallon capacity)
I-P15	PF resin tank (22,669 gallon capacity)
I-P17	PF resin tank (22,669 gallon capacity)
I-P19	PF resin tank (22,669 gallon capacity)

Emission Source ID No.	Emission Source Description
I-P20	PF resin tank (22,669 gallon capacity)
I-P21	PF resin tank (22,669 gallon capacity)
I-P22	PF resin tank (22,669 gallon capacity)
I-P23	PF resin tank (22,669 gallon capacity)
I-P24	PF resin tank (22,669 gallon capacity)
I-P25	PF resin tank (22,669 gallon capacity)
I-P26	PF resin tank (22,669 gallon capacity)
I-P27	PF resin tank (22,669 gallon capacity)
I-P28	PF resin tank (22,669 gallon capacity)
I-P30	Process water tank (2,560 gallon capacity)
I-U1	PF flammable resin tank (22,443 gallon capacity)
I-U2	PF flammable resin tank (22,443 gallon capacity)
I-U3	PF flammable resin tank (22,443 gallon capacity)
I-U4	UF resin tank (22,443 gallon capacity)
I-U5	UF resin tank (22,443 gallon capacity)
I-U6	UF resin tank (22,443 gallon capacity)
I-U7	UF resin tank (22,443 gallon capacity)
I-U8	UF resin tank (22,443 gallon capacity)
I-U9	UF resin tank (22,443 gallon capacity)
I-U10	UF resin tank (22,443 gallon capacity)
I-WW1	Process water tank (27,678 gallon capacity)
I-R6	Process water tank (19,000 gallon capacity)
I-R9	Process water tank (29,000 gallon capacity)
I-A2	Methyl ethyl ketone tank (9,910 gallon capacity)
I-C1	Sulfuric acid tank (5,000 gallon capacity)
I-C2	GP-4590 Pre-catalyst tank (5,000 gallon capacity)
I-C3	GP-4590 Pre-catalyst tank (5,000 gallon capacity)
I-N1	PF resin tank (22,559 gallon capacity)
I-N2	PF resin tank (22,559 gallon capacity)
I-N3	PF resin tank (22,559 gallon capacity)
I-N4	PF resin tank (22,559 gallon capacity)
I-N5	PF resin tank (22,559 gallon capacity)
I-N6	PF resin tank (22,559 gallon capacity)
I-N7	PF resin tank (22,559 gallon capacity)
I-R1	Phenol tank (22,540 gallon capacity)
I-R2	Phenol tank (22,540 gallon capacity)
I-R3	Cresylic acid tank (22,669 gallon capacity)
I-R4	Caustic soda tank (29,500 gallon capacity)
I-R5	Phenol tank (22,540 gallon capacity)
I-R7	Urea solution tank (19,431 gallon capacity)

Emission Source ID No.	Emission Source Description
I-R8	Urea formaldehyde concentrate tank (25,379 gallon capacity)
I-R10	Phenol tank (22,540 gallon capacity)
I-S1	PF flammeable resin tank (9,910 gallon capacity)
I-S2	PF flammeable resin tank (9,910 gallon capacity)
I-S3	PF flammeable resin tank (9,910 gallon capacity)
I-S4	PF flammeable resin tank (9,910 gallon capacity)
I-S5	PF flammeable resin tank (9,910 gallon capacity)
I-S6	PF flammeable resin tank (9,910 gallon capacity)
I-S8	PF flammeable resin tank (9,910 gallon capacity)
I-S9	PF flammeable resin tank (9,910 gallon capacity)
I-S11	PF flammeable resin tank (9,910 gallon capacity)
I-S12	PF flammeable resin tank (9,910 gallon capacity)
I-S14	PF specialty resins tank (9,910 gallon capacity)
I-S15	PF specialty resins tank (9,910 gallon capacity)
I-S16	PF specialty resins tank (9,910 gallon capacity)
I-S17	PF specialty resins tank (9,910 gallon capacity)
I-S18	PF specialty resins tank (9,910 gallon capacity)
I-S20	Distillate water tank (9,910 gallon capacity)
I-S21	PF specialty resins tank (9,910 gallon capacity)
I-S22	PF speciality resins tank (9,910 gallon capacity)
I-D1	Diesel fuel tank (12,000 gallon capacity)
I-D2	Diesel fuel tank (10,000 gallon capacity)
I-FA	Formic acid tank (2,610 gallon capacity)
I-G1	Gasoline tank (2,000 gallon capacity)
I-UMO	Used motor oil tank (500 gallon capacity)
I-NMO	New motor oil tank (500 gallon capacity)
I-HTF1	Heat transfer fluid tank (2,800 gallon capacity)
I-RMCT1	Resi-Mix Chill Tank (6,141 gallon capacity)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit”.
3. For storage tanks - This list indicates material currently being stored in these tanks. Tank contents may change to different resin types or other material (process water, distillate, etc.) but would continue to be considered an insignificant activity.
4. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide.

Summary of Changes to Permit

The following changes were made to Georgia-Pacific Chemicals LLC, Conway, NC Air Permit No. 04243T24:

Previous Permit		New Permit		Description of Changes
Page No.	**Section**	**Page No.**	**Section**	
Cover and throughout	--	Cover and throughout	--	• Updated all dates and permit revision numbers. • Changed citations of 15A NCAC 2D to 15A NCAC 02D • Changed citations of 15A NCAC 2Q to 15A NCAC 02Q
--	Insignificant Activities List	--	Insignificant Activities List	• Added sources, deleted sources, and modified descriptions and ID numbers to multiple sources • Added link to DAQ "Specific Permit Conditions Regulatory Guide" • Modified Footnote 3 to apply to all tanks
3	1	3	1	Added "Resin loading racks" (ID No. ES-RLR) to table of permitted emission sources
3	1	4	1	Added control device ID No. CD-4.6, "Cartridge filter (2,712 square feet of media area)" to emission source ID No. ES4.6, "Batch non-reactor vessel, mix/blend tank K6" in table of permitted emission sources
4	1	4	1	Changed ID numbers for four batch non-reactor vessels associated with emission sources VS4A.1 and VS4A.2
5	2.1 A	7	2.1 A	• Removed references to fuel oil for boiler (ID No. ES-B2) in table • Changed "day" to "days" in table
8	2.1 A.6.a	9	2.1 A.6.a	Deleted the words "/propane and/or distillate oil"
8	2.1 A.6.b	--	--	Deleted monitoring/recordkeeping requirement to maintain fuel/distillate oil receipts
8	2.1 A.6.c	10	2.1 A.6.b	Changed numbering of reporting requirement for temporary boiler (ID No. ES-B2)
9	2.1 B.3	11	--	Removed avoidance conditions placed on emergency generators for Prevention of Significant Deterioration

Previous Permit		New Permit		Description of Changes
Page No.	**Section**	**Page No.**	**Section**	
11	2.1 C.2.c	13-14	2.1 C.2.c	Revised subparagraphs to improve clarity and ease of reading
13	2.1 D.2.c	14	2.1 D.2.c	Revised subparagraphs to improve clarity and ease of reading
14	2.1 E	15	2.1 E	Added reference to location of compliance assurance monitoring language in permit
15	2.1 E.3.c	17	2.1 E.3.c	Revised subparagraphs to improve clarity and ease of reading
16	2.1 E.4	32-33	2.3 B	Moved compliance assurance monitoring requirements to Section 2.3 of the permit
17	2.1 F.2	32	2.3 A.2	Updated risk management program requirements language, and moved language to Section 2.3 of the permit
18-22	2.2 A	19-24	2.2 A	Changed "Heat exchange system (ID No. HX1)" to "Cooling Tower HX1 (ID No. ES-T1A)"
19	2.2 A.1.d.iii	20-21	2.2 A.1.d.iii	• Added requirements for establishing operation ranges for catalytic oxidizer (ID No. CD-2A) to control emissions during high and low plant production scenarios. • Added table establishing current operation ranges and minimum temperature limits for catalytic oxidizer
23-26	2.2 B	25-28	2.2 B	Changed "Heat exchange system (ID No. HX2)" to "Cooling Tower HX2 (ID No. ES-T3)"
25	2.2 B.1.e.v	27	2.2 B.1.e.v	Changed requirement to "develop a startup, shutdown and maintenance plan" to a requirement to "maintain malfunction records for affected units, sources, and equipment"
--	--	27	2.2 B.1.e.ix	Added requirement to equip pressure relief devices with device(s) or a system that complies with pressure relief management requirements
26	2.2 B.1.g.iii	28	2.2 B.1.g.iii	Changed "Startup, Shutdown and Malfunction Reports to "Reports of Malfunctions"
29	2.2 D.1	--	--	Removed "Work Practices for Sources of Volatile Organic Compounds" from permit

Previous Permit		New Permit		Description of Changes
Page No.	**Section**	**Page No.**	**Section**	
29	2.2 D.2	31	2.2 D.1	Changed numbering of "Control and Prohibition of Odorous Emissions" requirement
--	--	32-33	2.3	Added Section 3, "Other Applicable Requirements" (contains risk management program and compliance assurance monitoring requirements)
30-39	3	34-43	3	Updated General Conditions to version 5.3, 8/21/2018

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
04243T25	04243T24	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:	**Georgia-Pacific Chemicals LLC - Conway**
Facility ID:	**6600016**
Facility Site Location:	**200 Ampac Road**
City, County, State, Zip:	**Conway, Northampton County, North Carolina 27820**
Mailing Address:	**Post Office Box 368**
City, State, Zip:	**Conway, North Carolina 27820**
Application Number:	**6600016.17A**
Complete Application Date:	**June 29, 2017**
Primary SIC Code:	**2821**
Division of Air Quality, Regional Office Address:	**Raleigh Regional Office 3800 Barrett Drive, Suite 101 Raleigh, North Carolina 27609**

Permit issued this the XX day of XXXXX, 2019

_____

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1 -PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

Page No(s).	**Emission Source ID No(s).** (CAA rules in **bold** type)	**Emission Source Description**	**Control Device ID No(s).**	**Control Device Description**
19, 29	VS2A **MACT F, G, H**	Process vent stream comprised of emissions from: • One formaldehyde production process including vaporizers, catalytic converters, cooling systems, an after cooler and an absorber (No. ES-2); • One formaldehyde tank truck loading rack (No. ES-FL); and • One methanol storage tank (507,852 gallon capacity, No. ES3M1) when this source is operating under its primary compliance scenario; and • Eight formaldehyde/methanol storage tanks (26,212 gallon capacity each, Nos. ES7F1 through ES7F8) when these sources are operating under their primary compliance scenario	CD-2A	Natural gas/propane-fired catalytic oxidizer (4.5 cubic feet of catalyst, 4.0 million Btu per hour maximum heat input primary burner)
19	ES-T1A **MACT F**	Cooling Tower HX1 (432,000 gallons/hr capacity)	NA	NA
	ES-MU	Methanol tank truck/railcar unloading	NA	NA
	ES-RLR	Resin loading racks comprised of emissions from East Load Rack, West Load Rack, Reactor Load Rack, and Railcar Load Rack	NA	NA
11	ES-UH-K3	Urea unloading hopper for reactor #3	CD-UH-K3	One bin vent filter (378 square feet of filter area)
11	ES-UH-K8	Urea unloading hopper for reactor #8	CD-UH-K8	One bin vent filter (378 square feet of filter area)
13	ES-11.1	Extender storage silo RM3	CD-11.1	Bin vent filter (4 cartridge filters, 100 square feet filter area in each cartridge filter)
13	ES-11.2	Extender storage silo RM4	CD-11.2	Bin vent filter (4 cartridge filters, 100 square feet filter area in each cartridge filter)

Page No(s).	Emission Source ID No(s). (CAA rules in **bold** type)	Emission Source Description	Control Device ID No(s).	Control Device Description
25, 29	VS4A.1 **MACT OOO, UU**	Aggregate batch process vent stream comprised of emissions from ten resin production vessels including four batch non-reactor vessels (three weigh tanks, Nos. ES4.1-5WT, ES4.2WT and ES4.8WT, and one mix/blend tank, No. ES-13) and six batch reactor vessels (Nos. ES4.1, ES4.2, ES4.3, ES4.5, ES4.7 and ES4.8)	CD-4A	Natural gas/propane-fired thermal oxidizer (2.9 million Btu per hour maximum heat input)
25, 29	ES4.6 **MACT OOO, UU**	Batch non-reactor vessel, mix/blend tank K6	CD-4.6	Cartridge filter (2,712 square feet of media area)
19, 25, 29	VS4A.2 **MACT F, G, H** (for storage vessel vent stream) and **MACT OOO, UU** (for aggregate batch process vent stream)	Vent stream comprised of emissions from: • One methanol storage tank (507,852 gallon capacity, No. ES3M1) when this source is operating under its alternate compliance scenario; • Eight formaldehyde/methanol storage tanks (26,212 gallon capacity, each, Nos. ES7F1 through ES7F8) when these sources are operating under their alternate compliance scenario; and • Aggregate batch process vent stream comprised of emissions from ten resin production vessels including four batch non-reactor vessels (three weigh tanks, Nos. ES4.1-5WT, ES4.2WT and ES4.8WT and one mix/blend tank, No. ES-13); and six batch reactor vessels (Nos. ES4.1, ES4.2, ES4.3, ES4.5, ES4.7 and ES4.8)	CD-4A	Natural gas/propane-fired thermal oxidizer (2.9 million Btu per hour maximum heat input)
15, 25, 32	VS5A **MACT OOO, UU, CAM**	Continuous process vent stream comprised of emissions from the spray dry resin production process including a natural gas/propane-fired atomizing air heater (14.6 million Btu per hour maximum heat input rate), a spray dryer, several transfer cyclones and a product bagging operation (No. ES-5)	CD-5A	Bagfilter (14,500 square feet of filter area)
25	ES-T3 **MACT OOO**	Cooling Tower HX2 (600,000 gallons/hr capacity)	NA	NA
18, 25, 29	ES-S19 **MACT OOO, UU**	Aqueous ammonia storage tank (9,924 gallon capacity)	CD-S19	One scrubber tank (56 inch minimum liquid level from tank bottom)

Page No(s).	Emission Source ID No(s). (CAA rules in **bold** type)	Emission Source Description	Control Device ID No(s).	Control Device Description
29	ES-PU **MACT OOO, UU**	Phenol unloading operations	NA	NA
29	ESR8 **MACT OOO, UU**	Urea-formaldehyde concentrate (UFC) storage tank (25,366 gallon capacity)	NA	NA
29	ESR1 **MACT OOO, UU**	Phenol storage tank (22,548 gallon capacity)	NA	NA
29	ESR2 **MACT OOO, UU**	Phenol storage tank (22,548 gallon capacity)	NA	NA
29	ESR5 **MACT OOO, UU**	Phenol storage tank (22,548 gallon capacity)	NA	NA
29	ESR10 **MACT OOO, UU**	Phenol storage tank (22,548 gallon capacity)	NA	NA
29	PFTF **MACT OOO, UU**	Phenol-formaldehyde resin tank farm	NA	NA
29	UFTF **MACT OOO, UU**	Urea-formaldehyde resin tank farm	NA	NA
7	ES-B1 **NSPS Dc, MACT DDDDD**	One natural gas/propane-fired boiler (25.1 million Btu per hour maximum heat input rate)	NA	NA
7	ES-B2	One natural gas-fired temporary boiler (less than 25 million Btu per hour maximum heat input rate)	NA	NA
10	ES-GEN1 **MACT ZZZZ**	Diesel-fired generator (500 kW maximum rated power output)	NA	NA
10	ES-GEN2 **MACT ZZZZ**	Diesel-fired generator (500 kW maximum rated power output)	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. One natural gas/propane-fired boiler (ID No. ES-B1)
One natural gas-fired temporary boiler (ID No. ES-B2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant(s)	Limits/Standards	Applicable Regulation
Particulate matter	0.47 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
	For Boiler ES-B1 Maintain fuel use records	15A NCAC 02D .0524 (40 CFR 60, Subpart Dc)
Hazardous air pollutants	**For Boiler ES-B1** Work practices including annual tune-ups and one time energy assessment.	15A NCAC 02D .1111 (40 CFR 63, Subpart DDDDD)
Sulfur dioxide and visible emissions	**For Boiler ES-B2** The temporary boiler shall be onsite less than 180 days per consecutive twelve month period	15A NCAC 02Q .0317 (15A NCAC 02D .0524 Avoidance)
Hazardous air pollutants	**For Boiler ES-B2** The temporary boiler shall be onsite less than 180 days per consecutive twelve month period.	15A NCAC 02Q .0317 (15A NCAC 02D .1111 Avoidance)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of fuel that are discharged from these boilers (**ID Nos. ES-B1 and ES-B2)** into the atmosphere shall not exceed 0.47 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for particulate emissions from the firing of natural gas or propane in these boilers.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from these boilers (**ID Nos. ES-B1 and ES-B2)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If

the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of natural gas or propane in these boilers.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these boilers **(ID Nos. ES-B1 and ES-B2)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for visible emissions from the firing of natural gas or propane in these boilers.

For No. 1 Boiler (ID No. ES-B1)

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions."

Recordkeeping [15A NCAC 02Q .0508(f) and §60.48c]

b. The Permittee shall record and maintain records of the amounts of each fuel fired in the No. 1 Boiler **(ID No. ES-B1)** during each calendar month and make these records available to the NC DAQ upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f) and §60.48c]

c. No reporting is required.

For No. 1 Boiler (ID No. ES-B1)

5. 15A NCAC 02D .1111 National Emission Standard for Hazardous Air Pollutants, 40 CFR Part 63, Subpart DDDDD – Boiler and Process Heaters

a. The Permittee shall operate and maintain the boiler in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Work Practice [40 CFR 63.7540(a)(10) , 63.7515(d), Subpart DDDDD Table 3]

b. The Permittee shall conduct annual tune-ups of the boiler no more than 13 months from the previous tune-up to demonstrate continuous compliance as specified in b.i through b.v below.
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. (The burner inspection may be delayed until the next scheduled unit shutdown.)
   ii. Inspect the flame pattern as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustments should be consistent with the manufacturer specifications, where available.
   iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (The inspection may be delayed until the next scheduled unit shutdown);

iv. Optimize the total emissions of carbon monoxide consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject; and
v. Measure in the effluent stream the concentration of carbon monoxide (CO) in parts per million volume dry (ppmvd) and the percent oxygen on a volume basis before and after the adjustments are made. (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

c. If the boiler is not in operation during the time of the required tune-up, the tune-up may be delayed, provided the Permittee conducts the tune-up within one week of the boiler resuming operations. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the affected boiler is not inspected and maintained as required above.
d. The Permittee shall conduct a one-time energy assessment[1] performed by a qualified energy assessor by January 31, 2016, or by the date listed in 40 CFR 63.7540 if later, for boiler ID No. ES-B1. The energy assessment must include:
   i. A visual inspection of the boiler or process heater system.
   ii. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
   iii. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
   iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
   v. A review of the facility's energy management practices. (Provide recommendations for improvements consistent with the definition of energy management practices, if identified.)
   vi. A list of cost-effective energy conservation measures that are within the facility's control.
   vii. A list of the energy savings potential of the energy conservation measures identified
   viii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the energy assessment is not conducted.

Recordkeeping [15A NCAC 02Q .0508(f) and 40 CFR 63.7540, 63.7555 and 63.7560]

e. The Permittee shall maintain in a logbook (written or electronic format) an annual report of each boiler tune-up as specified in § 63.7540(a)(10)(vi) and including:
   i. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler;
   ii. A description of any corrective actions taken as a part of the tune-up; and
   iii. The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period.
   iv. If the Permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR part 63 or part 60, 61, or 65, the Permittee shall keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.
f. The Permittee shall maintain all records for a period of five years during which time the records shall be kept onsite for at least the first two years, and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f) and 40 CFR 63.9, 63.7540, 63.7545 and 63.7550]

[1] An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, operating an energy management program that includes ES-B1 compatible to ISO 50001, satisfies the energy assessment requirement.

g. The Permittee shall submit a compliance report after each annual tune-up that includes the following:
   i. Company and facility name and address;
   ii. Process unit information, emissions limitations, and operating parameter limitations;
   iii. Date of report and beginning and ending dates of the reporting period;
   iv. The date of the most recent tune-up for boiler **ID No. ES-B1**. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
   v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

h. Each annual compliance report must cover the period from January 1 or December 31, and must be postmarked or submitted no later than January 31.

For Temporary Boiler (ID No. ES-B2)

6. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. In order to avoid the applicability of 15A NCAC 02D .0524, the temporary boiler **(ID No. ES-B2)** shall combust natural gas with a potential sulfur dioxide emission rate no greater than 0.060 lb/MMBtu, be capable of being moved from one location to another, and remain onsite for no longer than 180 consecutive days as defined in 40 CFR 60.41c. [40 CFR 60.40c(d)]

Reporting [15A NCAC 02Q .0508(f)

b. The Permittee shall notify the Regional Office in writing within ten days of exceeding the 180 day period.

For Temporary Boiler (ID No. ES-B2)

7. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .1111 National Emission Standard for Hazardous Air Pollutants, 40 CFR Part 63, Subpart DDDDD – Boiler and Process Heaters

a. In order to avoid the applicability of 15A NCAC 02D .1111, the temporary boiler **(ID No. ES-B2)** shall not remain on site for more than 12 consecutive months. [40 CFR 63.7491(n) and 63.7575]

Reporting [15A NCAC 02Q .0508(f)

b. The Permittee shall notify the Regional Office in writing within ten days of exceeding the 12 consecutive month period.

B. Two diesel-fired emergency generators (ID Nos. ES-GEN1 and ES-GEN2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous Air Pollutants	Initial notification only— no applicable requirements	15A NCAC 02D .1111 [40 CFR 63, Subpart ZZZZ]

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from these emergency generators **(ID Nos. ES-GEN1 and ES-GEN2)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in these emergency generators.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these emergency generators (**ID Nos. ES-GEN1 and ES-GEN2**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for visible emissions from the firing of diesel fuel in these emergency generators.

C. Urea unloading hoppers (ID Nos. ES-UH-K3 and ES-UH-K8) with associated bin vent filters (ID Nos. CD-UH-K3 and CD-UH-K8)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from each of these urea unloading hoppers (**ID Nos. ES-UH-K3 and ES-UH-K8**) shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

c. Particulate matter emissions from the urea unloading hoppers (**ID Nos. ES-UH-K3 and ES-UH-K8**) shall be controlled by bin vent filters (**ID Nos. CD-UH-K3 and CD-UH-K8, respectively**). To ensure

compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. A monthly visual inspection of the system ductwork and material collection units for leaks; and
ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bin vent filters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bin vent filters are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the bin vent filters; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bin vent filters within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.1.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the urea unloading hoppers (**ID Nos. ES-UH-K3 and ES-UH-K8**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of the urea unloading hoppers, while the unloading hoppers are being filled, for any visible emissions above normal. The monthly observations must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.

   ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;

(B) the demonstration in c.i.(B) above cannot be made; or
(C) the monthly observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 C.2.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Two extender silos (ID Nos. ES-11.1 and ES-11.2) with associated bin vent filters (ID Nos. CD-11.1 and CD-11.2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from each of the extender silos (**ID Nos. ES-11.1 and ES-11.2**) shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

c. Particulate matter emissions from the two extender silos (**ID Nos. ES-11.2 and ES-11.2)** shall be controlled by bin vent filters (**ID Nos. CD-11.1 and CD-11.2, respectively**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. A monthly visual inspection of the system ductwork and material collection units for leaks; and
ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bin vent filters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bin vent filters are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the vent filter's; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bin vent filters within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 D.1.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the extender silos **(ID Nos. ES-11.1 and ES-11.2**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of the two extender silos, while the extender silos are being loaded, for any visible emissions above normal. The monthly observations must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a above.

   ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the monthly observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. The results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 D.2.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

E. Continuous process vent stream (ID No. VS5A) comprised of emissions from one spray dry resin production process including
-one natural gas/propane-fired atomizing air heater
-spray dryer
-transfer cyclones
-product bagging operation
with associated bagfilter (ID No. CD-5A)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
	Compliance Assurance Monitoring – See Section 2.3 A	15A NCAC 02D .0614
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
	Compliance Assurance Monitoring – See Section 2.3 A	15A NCAC 02D .0614
Toxic Air Pollutants	*State-enforceable only* - See Sections 2.2 C.1	15A NCAC 02D .1100
Hazardous Air Pollutants	See Section 2.2 B	15A NCAC 02D .1111 [40 CFR 63, Subparts OOO and UU]
Odorous emissions	*State Enforceable Only* - See Section 2.2 D.2	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the continuous process vent stream **(ID No. VS5A)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

c. Particulate matter emissions from the continuous process vent stream (**ID No. VS5A**) shall be controlled by a bagfilter (**ID No. CD-5A**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection units for leaks; and
   ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilter are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the vent filter's; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 E.1.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the natural gas/propane-fired atomizing air heater shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of natural gas or propane in the atomizing air heater.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the continuous process vent stream (**ID No. VS5A**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of the continuous process vent stream (**ID No. VS5A**) for any visible emissions above normal. The monthly observations must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
(A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
(B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.3.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
(A) the above-normal emissions are not corrected per c.i.(A) above;
(B) the demonstration in c.i.(B) above cannot be made; or
(C) the monthly observations are not conducted per c.i. above.

Recordkeeping [15A NCAC 02Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
i. The date and time of each recorded action;
ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
iii. The results of any corrective actions performed.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 E.3.c and d above postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Aqueous ammonia storage tank (ID No. ES-S19) with associated scrubber tank (ID No. CD-S19)

Methanol storage tank (ID No. ES3M1) and eight formaldehyde/methanol storage tanks (ID Nos. ES7F1 through ES7F8) with associated catalytic oxidizer (POS; ID No. CD-2A) or thermal oxidizer (AOS; ID No. CD-4A)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	For ES3M1, reduce the organic emissions into the atmosphere by at least 90% by weight	15A NCAC 02D .0949
Formaldehyde and Ammonia	Risk Management Plan for ES-ES19 and ES7F1 to ESES7F8	15A NCAC 02D .2100
Toxic Air Pollutants	***State-enforceable only*** - See Section 2.2 C.1 for ES-ES19 and ES7F1 to ESES7F8	15A NCAC 02D .1100
Hazardous Air Pollutants	See Section 2.2 A for ES3M1, ES7F1 to ES7F8	15A NCAC 02D .1111 [40 CFR 63, Subparts F, G and H]
	See Section 2.2 B for ES-S19	15A NCAC 02D .1111 [40 CFR 63, Subparts OOO and UU]
Odorous emissions	***State Enforceable Only*** -See Section 2.2 D.2	15A NCAC 02D .1806

1. 15A NCAC 02D .0949: STORAGE OF MISCELLANEOUS VOLATILE ORGANIC COMPOUNDS

a. Emissions of volatile organic compounds (VOC) from methanol storage tank (**ID No. ES3M1**) into the atmosphere shall be reduced by at least 90 percent, by weight. All tank gauging or sampling devices shall be gas-tight except when tank gauging or sampling is taking place.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate a VOC reduction less than that required in Section 2.1 F.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0949.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. VOC emissions from methanol storage tank (**ID No. ES3M1**) shall be controlled by the formaldehyde manufacturing process which vents through the absorber to the catalytic oxidizer **(ID No. CD-2A)**. During planned outages of the formaldehyde manufacturing process, emissions from the methanol tank shall be controlled by the thermal oxidizer (**ID No. CD-4A**). During periods when both the formaldehyde manufacturing process and thermal oxidizer (**ID No. CD-4A**) are not operating, the level of the methanol tank shall not be increased. To ensure compliance, the Permittee shall conduct the associated monitoring, recordkeeping and reporting requirements found in Sections 2.2 A.1.e.i through v, f.i through v, and g.iv.(A) through (D) below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0949 if the Permittee does not comply with those monitoring, recordkeeping and reporting requirements or if the emissions are not reduced as required in Section 2.1 F.1.a above.

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Cooling Tower HX1 (ID No. ES-T1A);
Formaldehyde tank truck loading rack (ID No. ES-FL);
Methanol and/or formaldehyde storage tanks (ID Nos. ES7F1 through ES7F8)
Group 1 process vent stream (ID No. VS2A) with associated catalytic oxidizer (ID No. CD-2A); and
Vent stream (ID No. VS4A.2) with associated thermal oxidizer (ID No. CD-4A)

The following provides a summary of limits and/or standards for the emission source(s) described above:

Emission Source(s)	Limits/Standards	Applicable Regulation
Methanol and/or formaldehyde storage tanks (**ID Nos. ES7F1 through ES7F8**)	**While storing methanol -** Reduce total organic HAP emissions by at least 95 percent by weight by operating and maintaining a closed vent system to the formaldehyde process.	15A NCAC 02D .1111 [40 CFR §63.119(a)(1) and §63.113(e)(1)]
	While storing formaldehyde - Recordkeeping only.	15A NCAC 02D .1111 [40 CFR §63.119(a)(3)]
Methanol storage tank (**ID No. ES3M1**) and vent stream (**ID No. VS4A.2**)	Reduce total organic HAP emissions by at least 95 percent by weight by operating and maintaining a closed vent system to the formaldehyde process.	15A NCAC 02D .1111 [40 CFR §63.119(a)(1) and §63.113(e)(1)]
Formaldehyde tank truck loading rack (**ID No. ES-FL**)	**Recordkeeping only *as long as*** annual loadout of liquid products that contain organic HAP with a rack weighted average vapor pressure greater than or equal to 10.3 kilopascals is less than 650,000 liters per year.	15A NCAC 02D .1111 [40 CFR §63.111 and §63.126(c)]
Process vent stream (**ID No. VS2A**)	Reduce total organic HAP emissions by at least 98 percent by weight or to a concentration of 20 parts per million by volume, whichever is less stringent.	15A NCAC 02D .1111 [40 CFR §63.113(a)(2)]
Process vent bypass lines	Install a flow indicator at the entrance to any bypass line that could divert the gas stream to the atmosphere or secure the bypass line in the non-diverting position with a car-seal or a lock-and-key type configuration.	15A NCAC 02D .1111 [40 CFR §63.114(d)]
Cooling Tower HX1 **(ID No. ES-T1A)**	Comply with the Heat Exchange System requirements of §63.104.	15A NCAC 02D .1111 [40 CFR §63.104(a)(1)]
Equipment leaks	Establish, maintain and implement a leak detection and repair (LDAR) program that complies with the requirements of 40 CFR Part 63, Subpart H.	15A NCAC 02D .1111 [40 CFR §63.148(k)]

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [40 CFR Part 63, Subparts F, G, and H]

Applicability [40 CFR §63.100, §63.110 and §63.160]

a. The Permittee shall comply with all applicable requirements of 15A NCAC 02D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63, including Subparts F "National Emission Standards

for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry", G "National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) for Process Vents, Storage Vessels, Transfer Operations, and Wastewater", H "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" and A "General Provisions."

Standards [40 CFR §63.104, §63.112, §63.113, §63.119 and §63.126]

b. In accordance with 40 CFR §63.104, §63.112, §63.113, §63.119 and §63.126 the Permittee shall limit organic Hazardous Air Pollutant (HAP) emissions to the atmosphere from the affected sources as follows:
   i. For the Group 1 process vent stream (**ID No. VS2A**), the total organic HAP emissions from the Group 1 vent stream shall be either reduced by at least 98 percent by weight or reduced to a concentration of no more than 20 parts per million by volume, whichever is less stringent. This requirement does not apply to a source during periods of non-operation or startup/shutdown/malfunction (SSM) as defined at 40 CFR §63.101(b) if that source is operated during such periods in accordance with 40 CFR §63.102(a)(4).
   ii. For the Group 1 storage vessels (**ID Nos. ES7F1 through ES7F8, while storing methanol, and ES3M1**) and vent stream (**ID No. VS4A.2**), the total organic HAP emissions from the Group 1 storage vessels shall be routed through a closed vent system and control device and reduced by at least 95 percent by weight. This requirement does not apply to a source during periods of non-operation or SSM as defined at 40 CFR §63.101(b) if that source is operated during such periods in accordance with 40 CFR §63.102(a)(4);
   iii. For the Group 2 storage vessels (**ID Nos. ES7F1 through ES7F8**, **while storing formaldehyde**), the Permittee shall maintain records in accordance with Section 2.2 A.1.f.iii, below;
   iv. For the formaldehyde tank truck loading rack **(ID No. ES-FL**), the Permittee shall conduct loading operations such that Group 2 status, as defined at §63.111, is maintained or shall meet the Group 1 requirements of §63.126 for these operations; and
   v. For the cooling tower HX1(**ID No. ES-T1A**), the Permittee shall operate the cooling tower to comply with the requirements of §63.104.

Testing [40 CFR §63.116, §63.128 and 15A NCAC 02Q .508(f)]

c. If emissions testing is required, the testing shall be performed in accordance with 40 CFR §63.116, §63.128, and General Condition JJ found in Section 3. If the results of this testing indicates noncompliance with the standards given in Section 2.2 A.1.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subparts F and G.

Control and Operation Requirements [40 CFR §63.104, §63.113, §63.114, §63.119 and §63.126]

d. To assure compliance with the standards listed in Section 2.2 A.1.b, above, the Permittee shall comply with the following control and operation requirements:
   i. The organic HAP emissions from the Group 1 process vent stream (**ID No. VS2A**) shall be controlled by the catalytic oxidizer (**ID No. CD-2A**) and the organic HAP emissions from vent stream (**ID No. VS4A.2**) shall be controlled by the thermal oxidizer (**ID No. CD-4A),** except that the portion of these vent streams comprised of emissions from the storage vessels (**ID Nos. ES7F1 - ES7F8 and ES3M1**) may be controlled as described in Section 2.2 A.1.d.ii, below;
   ii. The methanol emissions from the storage vessels (**ID Nos. ES7F1 - ES7F8 and ES3M1**) may be either controlled as described in Section 2.2 A.1.d.i, above, or routed back into the formaldehyde production process (**ID No. ES-2)** as allowed in §63.119(f)(1) through (3);
   iii. (A) The Permittee shall establish operating ranges for the catalytic oxidizer (**ID No. CD-2A**) that indicate proper operation of the control or recovery device for each parameter monitored under 40 CFR 63.114(a), (b), and (c). The operating ranges shall be established to control emissions during high and low load formaldehyde plant production scenarios, respectively. In order to establish these ranges, the Permittee shall submit a Notification of Compliance Status providing the information required in 40 CFR 63.152(b) in the operating permit renewal application or

amendment. The operating ranges may be based upon a prior performance test conducted for determining compliance with a regulation promulgated by the EPA. The Permittee is not required to conduct a performance test under 40 CFR 63.116 if the prior performance test was conducted using the same methods specified in 40 CFR 63.116, and either:
(1) no process changes have been made since the test, or
(2) the Permittee can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(B) The Permittee shall maintain the inlet temperature and catalyst differential temperature of the catalytic oxidizer **(ID No. CD-2A)** at or above the compliance limits prescribed in the table below on a daily average basis as detailed in 40 CFR 63.152(f). The oxidizer compliance temperatures will automatically reset upon submittal of a new or amended Notification of Compliance Status as described in Section 2.2 A.1.d.iii.(A) above.

Operating Ranges and Catalytic Oxidizer Minimum Compliance Temperature Limits				
Operating Range	**Methanol Feed Rate (gallons per minute)**	**Methanol Feed Rate (pounds per hour)**	**Average Catalyst Inlet Temperature (ºF)**	**80% of Average Temperature Across Catalyst Bed (ºF)**
High	17.6 – 25.6	6,963 – 10,166	775	314
Low	12.0 – 17.5	4,774 – 6,962	775	189

iv. The thermal oxidizer (**ID No. CD-4A**) shall be operated such that a minimum firebox daily average temperature of 1,250 ºF is maintained at all times, except as allowed under Section 2.2 A.1.d.vi, below; and

v. For any process vent bypass lines, the Permittee shall either:
(A) Properly install, maintain, and operate a flow indicator that takes flow readings at least once every 15 minutes at the entrance to any bypass line that could divert the gas stream to the atmosphere; or
(B) Secure the bypass line in the non-diverting position with a car-seal or a lock-and-key type configuration.
The requirements of Section 2.2 A.1.d.v do not apply to equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes;

vi. The requirements of Sections 2.2 A.1.d.i through iv, above, do not apply to a source during periods of non-operation or SSM [as defined in paragraph 40 CFR §63.101(b)] if that source is operated during such periods in accordance with 40 CFR §63.102(a)(4);

vii. The Permittee shall perform annual throughput calculations to support the Group 1 or Group 2 status designation for the formaldehyde tank truck loading rack (**ID No. ES-FL**) and comply with the appropriate requirements based on designated status, and

viii. The Permittee shall comply with heat exchange system requirements in §63.104.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subparts F and G if the control and operational requirements of Sections 2.2 A.1.d.i through 2.2 A.1.d.viii, above, are not met.

Monitoring [40 CFR §63.6, §63.114, §63.123, §63.130, §63.148 and §63.152 and Tables 3 and 7 of Subpart G]

e. To assure compliance with the standards listed in Section 2.2 A.1.b, above, the Permittee shall comply with the following monitoring requirements:

i. For the catalytic oxidizer (**ID No. CD-2A**), the Permittee shall, in accordance with the manufacturer's

specifications, install, calibrate, maintain and operate temperature monitoring devices equipped with continuous recorders in the gas stream immediately before and after the catalyst bed;

ii. For the thermal oxidizer (**ID No. CD-4A**), the Permittee shall, in accordance with the manufacturer's specifications, install, calibrate, maintain and operate a temperature monitoring device equipped with a continuous recorder either in the firebox or in the duct work immediately downstream of the firebox in a position before any substantial heat exchange occurs;

iii. The Permittee shall monitor and record the parameters of Sections 2.2 A.1.e.i and 2.2 A.1.e.ii and manipulate the recorded data values as follows:
   (A) The monitoring system shall measure data values at least once every 15 minutes;
   (B) The owner/operator shall record either:
      (1) Each measured data value; or
      (2) Block average values for 15-minute or shorter periods calculated from all measured data values that are not excluded by Section 2.2 A.1.e.iii.(E), below, during each period or a least one measured data value per minute if measured more frequently than once per minute.
   (C) Daily average values of each monitored parameter shall be calculated for each operating day as the average of all values for a monitored parameter recorded during the operating day, except that:
      (1) Data excluded by Section 2.2 A.1.e.iii.(E), below, shall not be used to compute daily average values; and
      (2) If all recorded values for a monitored parameter during an operating day are within the established range, the owner/operator may record that all values were within the established range and the values recorded under Section 2.2 A.1.e.iii.(D), below, rather than calculating and recording a daily average for that operating day.
   (D) If the daily average value of a monitored parameter for a given operating day is within the established range, the owner/operator shall either:
      (1) Retain block hourly average values for that operating day and discard, at or after the end of that operating day, the values recorded under Section 2.2 A.1.e.iii.(B), above; or
      (2) Retain the values recorded under Section 2.2 A.1.e.iii.(B), above.
   (E) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks and zero (low-level) and high-level adjustments; or equipment start-ups, shutdowns, malfunctions or non-operation (if such non-operation results in cessation of the emissions to which the monitoring applies) shall not be included in any computed averages. The Permittee shall keep records of the times and durations of such periods and any other periods during process or control device operation when monitors are not operating;

iv. For any process vent bypass lines equipped with flow indicators, the Permittee shall take flow readings at least once every 15 minutes;

v. For any process vent bypass lines equipped with seals or closure mechanisms, the Permittee shall conduct a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line;

vi. For the formaldehyde tank truck loading rack (**ID No. ES-FL**), the Permittee shall monitor:
   (A) The actual throughput of the transfer operations;
   (B) The weight percent of organic HAP in the liquids loaded; and
   (C) The rack weighted average HAP partial pressure of the transfer operations;

vii. The Permittee shall comply with the monitoring requirements for heat exchange system in §63.104.;

viii. The Permittee shall develop a SSM plan as described in 40 CFR §63.6(e)(3);

ix. The Permittee shall establish, maintain and implement a leak detection and repair (LDAR) program that complies with §63.172 of 40 CFR Part 63, Subpart H for all subject equipment. Subject equipment includes equipment that is in organic HAP service, as determined in accordance with §63.100(f) and §63.101 [i.e. equipment that contains or contacts fluid that is greater than or equal to 5% HAP by weight for 300 or more hours per consecutive 12-month period]. The Permittee shall comply with the monitoring, recordkeeping and reporting (MRR) requirements of 40 CFR Part 63,

Subpart H for all subject equipment; and

x. The Permittee shall comply with the monitoring requirements of 40 CFR §63.146(b)(1) and §63.147(b)(8) (as applicable) for the wastewater streams at this facility.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subparts F and G if the monitoring required by Sections 2.2 A.1.e.i through 2.2 A.1.e.x, above, is not conducted or if that monitoring indicates (an) exceedance(s) of the standards in Section 2.2 A.1.b of this permit.

Recordkeeping [40 CFR §63.10, §63.118, §63.123, §63.130, §63.148 and §63.152 and Tables 3 and 7 of Subpart G]

f. The Permittee shall maintain records of the monitoring required by Sections 2.2 A.1.e.i through 2.2 A.1.e.x, above in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall include:
   i. For catalytic oxidizer (**ID No. CD-2A**), the required records of upstream temperature, downstream temperature and temperature change across the catalyst bed.
   ii. For thermal oxidizer (**ID No. CD-4A**), the required records of firebox temperatures.
   iii. For the methanol/formaldehyde storage vessels (**ID Nos. ES3M1 and ES7F1 through ES7F8**), readily accessible records showing the dimensions and capacity of each storage vessel for as long as the storage vessel is in operation and retains Group 1 or Group 2 status.
   iv. For any process vent bypass lines equipped with flow indicators:
      (A) Hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during the hour; and
      (B) Records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating.
   v. For any process vent bypass lines equipped with seals or closure mechanisms, records of the monthly visual inspections of the seals or closure mechanism including:
      (A) The duration of all periods when the seal mechanism is broken;
      (B) The duration of all periods when the bypass line valve position has changed;
      (C) The duration of all periods when the key for a lock-and-key type lock has been checked out; and
      (D) A record of any car-seal that has broken.
   vi. For the formaldehyde tank truck loading rack (**ID No. ES-FL**), records of annual values of the following:
      (A) The actual throughput of the transfer operations;
      (B) The weight percent of organic HAP in the liquids loaded; and
      (C) The rack weighted average HAP partial pressure of the transfer operations.
   vii. For the cooling tower HX1 (**ID No. ES-T1A**), records to demonstrate compliance with heat exchange system requirements of §63.104.
   viii. For all subject equipment, the records required by the SSM plan.
   ix. For the wastewater streams at this facility, the applicable records required by 40 CFR §63.146(b)(1) and §63.147(b)(8).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subparts F and G if the records required by Sections 2.2 A.1.f.i through 2.2 A.1.f.i.x, above, are not maintained or if those records indicate (an) exceedance(s) of the standards in Section 2.2 A.1.b of this permit.

Reporting [40 CFR §63.9, §63.10, §63.114, §63.118, §63.122 and §63.152 and Tables 3 and 7 of Subpart G]

g. The Permittee shall submit the following reports:
   i. Reports and notifications required by 40 CFR Part 63, Subpart A;
   ii. Reports required by the SSM plan for all subject equipment.
   iii. Notification of Compliance Status as described at 40 CFR §63.152(b) and other reports as described at 40 CFR §63.152(d), as applicable; and

iv. Semiannual reports, as described at 40 CFR §63.152(c), by February 15 of each calendar year for the preceding six-month period between July and December and by August 15 of each calendar year for the preceding six-month period between January and June. The semiannual reports shall clearly indicate any deviations from the requirements of this permit and/or 40 CFR Part 63, Subparts F and G and shall include:

(A) For catalytic oxidizer (**ID No. CD-2A**):

(1) Daily average temperature change across the catalyst bed for all operating days during which the daily average temperature change across the catalyst bed is less than 250 ºF;

(2) Daily average upstream temperature for all operating days during which the daily average upstream temperature is less than 685 ºF; and

(3) For each excursion caused by insufficient monitoring data as defined at 40 CFR §63.152(c)(2)(ii)(A), the dates and durations of periods during which insufficient monitoring data was collected.

(B) For thermal oxidizer (**ID No. CD-4A**):

(1) Daily average firebox temperature for all operating days during which the daily average firebox temperature is less than 1,250 ºF; and

(2) For each excursion caused by insufficient monitoring data as defined at 40 CFR §63.152(c)(2)(ii)(A), the dates and durations of periods during which insufficient monitoring data was collected.

(C) For any process vent bypass lines equipped with flow indicators, the dates, times and durations of all periods during which the process vent stream is diverted to the atmosphere;

(D) For any process vent bypass lines equipped with seals or closure mechanisms, the dates, times and durations of all periods during which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out;

(E) Reports of process changes, as defined at 40 CFR §63.115(e), to process vents as required under 40 CFR §63.118(g), (h), (i) and (j). These reports are not required for process changes that are exempted from this requirement pursuant to 40 CFR §63.152(k); and

(F) Notification if any Group 2 emission point becomes a Group 1 emission point, and a compliance schedule as required in 40 CFR §63.100.

**B. Four phenol storage tanks (ID Nos. ESR1, ESR2, ESR5 and ESR10);
Urea-formaldehyde concentrate (UFC) storage tank (ID No. ESR8);
Phenol-formaldehyde resin tank farm (ID No. PFTF);
Urea-formaldehyde resin tank farm (ID No. UFTF);
Ammonia storage tank (ID No. ES-S19) and associated scrubber tank (ID No. CD-S19);
Cooling Tower HX2 (ID No. ES-T3);
Continuous process vent stream (ID No. VS5A) and associated bagfilter (ID No. CD-5A);
Batch non-reactor vessel, mix/blend tank kettle 6 (ID No. ES4.6);
Aggregate batch process vent stream (ID No. VS4A.1) and vent stream (ID No. VS4A.2) and associated thermal oxidizer (ID No. CD-4A)**

The following table provides a summary of limits and standards for the emission source(s) describe above:

Emission Source(s)	Limits/Standards	Applicable Regulation
Storage vessels (**ID Nos. PFTF, UFTF, ES-S19, ESR1, ESR2, ESR5, ESR8 and ESR10**)	No applicable requirements.	15A NCAC 02D .1111 [40 CFR §63.1404(a)]
Continuous process vent stream (**ID No. VS5A**)	Reduce total organic HAP emissions to less than or equal to 4.3 kilograms of total organic HAP per megagram of resin produced (8.6 pounds of total organic HAP per ton of resin produced.	15A NCAC 02D .1111 [40 CFR §63.1405(b)]
Non-reactor batch process vents (**ID Nos. ES4.6,** ES4.1-5WT, ES4.2WT, ES4.8WT**, and ES-13**)	Reduce facility-wide total organic HAP emissions from all non-reactor batch process vents, combined, by at least 62 percent by weight.	15A NCAC 02D .1111 [40 CFR §63.1407(a)(3)]
Aggregate batch process vent stream (**ID No. VS4A.1**) and vent stream (**ID No. VS4A.2**)	Reduce total organic HAP emissions by at least 83 percent by weight or to a concentration of 20 parts per million by volume, whichever is less stringent.	15A NCAC 02D .1111 [40 CFR §63.1408]
Cooling Tower HX2 **(ID No. ES-T3)**	Monitor heat exchange system's cooling water for presence of formaldehyde or total organic carbon and repair any equipment leaks indicated.	15A NCAC 02D .1111 [40 CFR §63.1409]
Process vent bypass lines	Install a flow indicator at the entrance to any bypass line that could divert the gas stream to the atmosphere or secure the bypass line in the non-diverting position with a car-seal or a lock-and-key type configuration.	15A NCAC 02D .1111 [40 CFR §63.1415(d)]
Equipment leaks	Establish, maintain and implement a leak detection and repair (LDAR) program that complies with the requirements of 40 CFR Part 63, Subpart UU	15A NCAC 02D .1111 [40 CFR §63.1410]

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [40 CFR Part 63, Subparts OOO and UU]

Applicability [40 CFR §63.1400 and §63.1019]

a. The Permittee shall comply with all applicable requirements of 15A NCAC 02D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63, including Subparts OOO "National Emission Standards for Organic Hazardous Air Pollutants: Manufacture of Amino/Phenolic Resins", UU "National Emission Standards for Equipment Leaks - Control Level 2 Standards" and A "General Provisions."

Standards [40 CFR §63.1400, §63.1403, §63.1405, §63.1407, and §63.1408]

b. In accordance with 40 CFR §63.1400, §63.1403, §63.1405, §63.1407, and §63.1408 the Permittee shall limit organic Hazardous Air Pollutant (HAP) emissions to the atmosphere from the affected sources as follows:
   i. For the non-reactor batch process vents (**ID Nos. ES4.6, ES4.1-5WT, ES4.2WT, ES4.8WT, and ES-13**), the facility-wide total organic HAP emissions shall be reduced by at least 62 percent by weight. This requirement does not apply to a source during periods of non-operation, or startup, shutdown or malfunction as described at 40 CFR §63.1400(k)(1) through (3) and defined at 40 CFR §63.1402 if that source is operated during such periods in accordance with 40 CFR §63.1400(k)(4); and
   ii. For aggregate batch process vent stream (**ID No. VS4A.1**) and vent stream (**ID No. VS4A.2**), the total organic HAP emissions shall be either reduced by at least 83 percent by weight or reduced to a concentration of no more than 20 parts per million by volume, whichever is less stringent. This requirement does not apply to a source during periods of non-operation, or startup, shutdown or malfunction as described at 40 CFR §63.1400(k)(1) through (3) and defined at 40 CFR §63.1402 if that source is operated during such periods in accordance with 40 CFR §63.1400(k)(4)
   iii. For the continuous process vent stream (**ID No. VS5A**), no later than **October 15, 2019**, the Permittee shall reduce total organic HAP emissions to less than or equal to 4.3 kilograms of total organic HAP per megagram of resin produced (8.6 pounds of total organic HAP per ton of resin produced).

Testing [40 CFR §63.1414 and 15A NCAC 02Q .508(f)]

c. If emissions testing is required, the testing shall be performed in accordance with 40 CFR §63.1414 and General Condition JJ. If the results of this testing indicates noncompliance with the standards given in Section 2.2 B.1.b, above, the Permittee shall be deemed in noncompliance with 40 CFR Part 63, Subpart OOO and 15A NCAC 02D .1111.

Control Requirements [40 CFR §63.1400, §63.1403(a), §63.1405, §63.1407, §63.1408, §63.1410 and §63.1415(d)]

d. To ensure compliance with the standards listed in Section 2.2 B.1.b, above, the Permittee shall comply with the following control requirements:
   i. The organic HAP emissions from the aggregate batch process vent stream (**ID No. VS4A.1**) and vent stream (**ID No. VS4A.2**) shall be controlled by the thermal oxidizer (**ID No. CD-4A**).
   ii. The thermal oxidizer (**ID No. CD-4A**) shall be operated such that a minimum firebox daily average temperature of 1,250 degrees Fahrenheit (ºF) is maintained at all times.
   iii. For any process vent bypass lines, the Permittee shall either:
      (A) Properly install, maintain, and operate a flow indicator that takes flow readings at least once every 15 minutes at the entrance to any bypass line that could divert the gas stream to the atmosphere; or
      (B) Secure the bypass line in the non-diverting position with a car-seal or a lock-and-key type configuration.

      The requirements in this Subparagraph do not apply to certain equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes.
   iv. Closed vent systems that are utilized to vent emissions to a control device in order to comply with 40 CFR Part 63, Subpart OOO shall be vented through a closed vent system that meets the requirements of 40 CFR Part 63, Subpart SS as further qualified in §63.1410 of 40 CFR Part 63, Subpart OOO.
   v. The Permittee shall comply with the requirements for pressure relief devices in organic HAP service in §63.1411 of 40 CFR Part 63, Subpart OOO.
   vi. The Permittee shall determine initial and continuous compliance with the mass emission limit specified in 2.2 B.1.b.iii as follows:

(A) Initial compliance shall be determined by comparing the results of the performance test or design evaluation, as specified in §63.1413(a) of 40 CFR Part 63, Subpart OOO, to the mass emission limit.
(B) Continuous compliance shall be determined based on the daily average emission rate calculated for each operating day. The first continuous compliance average daily emission rate shall be calculated using the first 24-hour period or otherwise-specified operating day after the compliance date. Continuous compliance shall be determined by comparing the daily average emission rate to the mass emission limit specified in 2.2 B.1.b.iii above.
(C) The daily emission rate, kilograms of organic HAP per megagram of product, shall be determined for each operating day using the following equation:

$$\mathbf{ER = E}i\mathbf{/RP}_M$$

Where:

ER = Emission rate of organic HAP from continuous process vent, kg of HAP/Mg product.

E*i* = Emission rate of organic HAP from continuous process vent *i* as determined using the procedures specified in paragraph (D) of this section, kg/day.

RP_M = Amount of resin produced in one month as determined using the procedures specified in paragraph (E) of this section, Mg/day.

(D) The daily emission rate of organic HAP, in kilograms per day, (E*i*) from the individual continuous process vent (**ID No. VS5A**) shall be determined. Once organic HAP emissions have been estimated, as specified in paragraph (E) below, the owner or operator may use the estimated organic HAP emissions (E*i*) until the estimated organic HAP emissions are no longer representative due to a process change or other reason known to the owner or operator. If organic HAP emissions (E*i*) are determined to no longer be representative, the owner or operator shall redetermine organic HAP emissions for the continuous process vent following the procedures in paragraph (E) below.
(E) (i) For continuous process vents estimated through engineering assessment, as described in §63.1414(d)(10), to emit less than 10 tons per year of uncontrolled organic HAP emissions, the owner or operator may use the emissions determined using engineering assessment in 2.1 B.1.d.vi(C) of this section or may determine organic HAP emissions using the procedures specified in §63.1413(a)(1)(i) of 40 CFR Part 63, Subpart OOO.
(ii) For continuous process vents estimated through engineering assessment, as described in §63.1414(d)(10), to emit 10 tons per year or greater of uncontrolled organic HAP emissions, uncontrolled organic HAP emissions shall be estimated following the procedures specified in §63.1413(a)(1)(i) of 40 CFR Part 63, Subpart OOO.
(F) The rate of resin produced, RP_M (Mg/day), shall be determined based on production records certified by the owner or operator to represent actual production for the day. A sample of the records selected by the owner or operator for this purpose shall be provided to the Administrator in the Precompliance Report as required by § 63.1417(d).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subpart OOO if the control requirements of Sections 2.2 B.1.d.i through vi, above, are not met.

Monitoring [40 CFR §63.1409, §63.1410, §63.1413, §63.1415, §63.1416 and Tables 3 and 4 of Subpart OOO]

e. To ensure compliance with 40 CFR Part 63, Subpart OOO and the standards listed in Section 2.2 B.1.b above, the Permittee shall comply with the following monitoring requirements:

i. For the thermal oxidizer (**ID No. CD-4A**) the Permittee shall, in accordance with the manufacturer's specifications, install, calibrate, maintain and operate a temperature monitoring device equipped with a continuous recorder either in the firebox or in the duct work immediately downstream of the firebox in a position before any substantial heat exchange occurs;

ii. The Permittee shall monitor and record the thermal oxidizer (**ID No. CD-4A**) firebox temperature and manipulate the recorded data values as follows:
   (A) The monitoring system shall measure data values at least once every 15 minutes;
   (B) The owner/operator shall record either:
      (1) Each measured data value; or
      (2) Average values for 1-hour or shorter periods calculated from all measured firebox temperature values, that are not excluded by Section 2.2 B.1.e.ii.(D), below, during each period or a least one measured data value per minute if measured more frequently than once per minute.
   (C) As described in 40 CFR 63.1416(c), the Permittee shall calculate daily average, batch cycle average, or block average values of the continuously monitored firebox temperature values for each operating day as the average of all values for a monitored parameter recorded during the appropriate period, except that:
      (1) Data excluded by Section 2.2 B.1.e.ii.(D), below, shall not be used to compute daily average values; and
      (2) If all recorded firebox temperature values during an operating day or block are greater than or equal to 1,250 ºF, the owner/operator may record that all values were within the established range and the values recorded under Section 2.2 B.1.e.ii.(B), above, rather than calculating and recording a daily average or block average for that operating day.
   (D) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks and zero (low-level) and high-level adjustments; or equipment start-ups, shutdowns, malfunctions or non-operation (if such non-operation results in cessation of the emissions to which the monitoring applies) shall not be included in any computed averages. The Permittee shall keep records of the times and durations of such periods and any other periods during process or control device operation when monitors are not operating.

iii. For any process vent bypass line equipped with a flow indicator, the Permittee shall take flow readings at least once every 15 minutes;

iv. For any process vent bypass line equipped with seals or closure mechanisms, the Permittee shall conduct a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line;

v. The Permittee shall maintain malfunction records for affected units, sources, and equipment as described in 40 CFR §63.1416(b) ;

vi. The Permittee shall comply with the monitoring, recordkeeping and reporting requirements of 40 CFR Part 63, Subpart SS as further qualified in §63.1410(h) of 40 CFR Part 63, Subpart OOO for closed vent systems that are utilized to vent emissions to a control device in order to comply with 40 CFR Part 63, Subpart OOO;

vii. In accordance with paragraph §63.1400(k)(2) of 40 CFR Part 63, Subpart OOO, the Permittee must establish, maintain and implement a leak detection and repair (LDAR) program that complies with 40 CFR Part 63, Subpart UU and 40 CFR §63.1410 for all subject equipment. Subject equipment includes equipment subject to 40 CFR Part 63, Subpart OOO that contains or contacts HAP greater than or equal to 5% by weight [as determined in accordance with section §63.1410] for 300 or more hours per consecutive 12-month period. The Permittee shall comply with the monitoring, recordkeeping and reporting requirements of 40 CFR Part 63, Subpart UU for all subject equipment; and

viii. The Permittee shall monitor the cooling tower HX2 (**ID No. ES-T3**) used to cool process equipment subject to 40 CFR Part 63, Subpart OOO in accordance with 40 CFR §63.1409. The Permittee may use ASTM Method D6303-98 to monitor formaldehyde in the cooling water of the subject heat

exchange systems as approved by the US EPA in a letter dated November 13, 2003. The Permittee shall:
(A) Monitor the cooling water quarterly for total organic carbon or formaldehyde; and
(B) If a leak is detected then, except for allowed repair delays described at 40 CFR §63.1409(e), the Permittee shall repair the leak as follows:
(1) The leak shall be repaired as soon as practical but not later than 45 calendar days after receiving results of monitoring tests indicating a leak; and
(2) Once the leak has been repaired, the Permittee shall confirm that the heat exchange system has been repaired within seven (7) calendar days of the repair or startup, whichever is later.

ix. The Permittee shall equip each pressure relief device in organic HAP service with a device(s) or parameter monitoring system that complies with the pressure relief management requirements of 40 CFR §63.1411(c).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subpart OOO if the monitoring required by Sections 2.2 B.1.e.i through ix, above, is not conducted or if that monitoring indicates (an) exceedance(s) of the standards in Section 2.2 B.1.b, above.

Recordkeeping [40 CFR §63.6, §63.1416 and Tables 3 and 4 of 40 CFR Part 63, Subpart OOO]

f. The Permittee shall maintain records of the monitoring required by Sections 2.2 B.1.e.i through ix, above, in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall include:
i. For the thermal oxidizer (**ID No. CD-4A**):
(A) The required records of firebox temperatures, and
(B) the information specified in §63.1416 (g)(6)(i) through (iii) of this section, as applicable, for those planned routine maintenance operations that would require the control device not to meet the requirements of § 63.1404(a) or (b).
ii. For any process vent bypass lines equipped with flow indicators:
(A) Hourly records of whether the flow indicator was operating and whether a diversion was detected at any time during the hour; and
(B) Records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating.
iii. For any process vent bypass lines equipped with seals or closure mechanisms: Records of the monthly visual inspections of the seals or closure mechanism. The logbook shall also include:
(A) The duration of all periods when the seal mechanism is broken;
(B) The duration of all periods when the bypass line valve position has changed;
(C) The duration of all periods when the key for a lock-and-key type lock has been checked out; and
(D) A record of any car-seal that has broken.
iv. For cooling tower HX2 (**ID No. ES-T3**), records of the leak detection testing and results, the presence of any leak, and when it was repaired.
v. For the continuous process vent stream (**ID No. VS5A**):
(A) Volumetric flow rate records as specified in 40 CFR §63.1416(f)(2).
(B) Organic HAP concentration records as specified in 40 CFR §63.1416(f)(3).
(C) Process change records as specified in 40 CFR §63.1416(f)(4),
(D) The records specified in 40 CFR §63.1416(f)(5) that demonstrate compliance with the mass emission limit specified in 2.2 B.1.b.iii.
vii. For pressure relief devices in organic HAP service, keep records of the information specified in 40 CFR §63.1416 (g)(5)(i) through (v), as applicable

The Permittee will be deemed in noncompliance with 15A NCAC 02D .1111 and 40 CFR Part 63, Subpart OOO if the records required by Sections 2.2 B.1.f.i through vii are not maintained or if those records indicate (an) exceedance(s) of the standards in Section 2.2 B.1.b of this permit.

Reporting [40 CFR §63.1400(j), §63.1417 and Table 5 of 40 CFR Part 63, Subpart OOO]

g. The Permittee shall perform the following reporting:

i. The reporting and notifications required by both 40 CFR Part 63, Subpart A and §63.1400(j) and Table 5 of 40 CFR Part 63, Subpart OOO;
ii. Precompliance Reports as described at 40 CFR §63.1417(d), Notification of Compliance Status as described at 40 CFR §63.1417(e) and other reports as described at 40 CFR §63.1417(h), as applicable;
iii. Reports of Malfunctions in accordance with 40 CFR §63.1417(g); and
iv. Periodic Reports, as described at 40 CFR §63.1417(f), by February 15 of each calendar year for the preceding six-month period between July and December and by August 15 of each calendar year for the preceding six-month period between January and June. The Periodic Report shall clearly indicate any deviations from the requirements of this permit and/or 40 CFR Part 63, Subpart OOO and include the information required pursuant to 40 CFR §63.1417(f)(3) through (11), as applicable, or a statement that the affected source was in compliance for the preceding 6-month period and no activities specified in 40 CFR §63.1417(f)(3) through (11) occurred during the preceding 6-month period.

**C. Continuous process vent stream (ID No. VS5A) and associated bagfilter (ID No. CD-5A);
Urea-formaldehyde concentrate storage tank (ID No. ESR8);
Four phenol storage tanks (ID Nos. ESR1, ESR2, ESR5 and ESR10);
Phenol-formaldehyde resin tank farm (ID No. PFTF);
Urea-formaldehyde resin tank farm (ID No. UFTF);
One aqueous ammonia storage tank (ID No. ES-S19) and associated scrubber tank (ID No. CD-S19);
Phenol unloading operations (ID No. ES-PU);
One batch non-reactor vessel, mix/blend tank kettle 6 (ID No. ES4.6);
Formaldehyde production leak detection and repair (LDAR) program equipment;
Resin production LDAR program equipment;
Process vent stream (ID No. VS2A) and associated catalytic oxidizer (ID No. CD-2A); and
Aggregate batch process vent stream (ID No. VS4A.1) and vent stream (ID No. VS4A.2) and associated thermal oxidizer (ID No. CD-4A)**

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1100 CONTROL OF TOXIC AIR POLLUTANTS (TAP)

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, received July 11, 2007, the following permit limits shall not be exceeded:

TAP	Emission Source(s)	Emission Limit
Formaldehyde	Process vent stream (**ID No. VS2A**)	1.43 pounds per hour
	Aggregate batch process vent stream (**ID No. VS4A.1**) or vent stream (**ID No. VS4A.2)**	0.43 pounds per hour
	Formaldehyde production LDAR program equipment	0.014 pounds per hour
	Resin production LDAR program equipment	0.094 pounds per hour
	Storage and loadout of resins in phenol-formaldehyde resin tank farm (**ID No. PFTF**), urea-formaldehyde resin tank farm (**ID No. UFTF**)	0.23 pounds per hour
	Continuous process vent stream (**ID No. VS5A**)	4.8 pounds per hour
Phenol	Aggregate batch process vent stream (**ID No. VS4A.1**) or vent stream (**ID No. VS4A.2**)	0.04 pounds per hour
	Resin production LDAR program equipment	0.12 pounds per hour
	Storage and loadout of resins in phenol-formaldehyde resin tank farm (**ID No. PFTF**), urea-formaldehyde resin tank farm (**ID No. UFTF)**)	0.03 pounds per hour
	Continuous process vent stream **(ID No. VS5A**)	2.26 pounds per hour
	Phenol storage tanks (**ID Nos. ESR1, ESR2, ESR5 and ESR10**)	1.59 pounds per hour
	Phenol unloading operations (**ID No. ES-PU**)	0.6 pounds per hour
Ammonia	Continuous process vent stream (**ID No. VS5A**)	4.44 pounds per hour
	Aqueous ammonia storage tank (**ID No. ES-S19**)	4.5 pounds per hour

Control Requirements [15A NCAC 02Q .0508(f)]

b. To ensure compliance with the emission limits in Section 2.2 C.1.a, above, the Permittee shall comply with the following control requirements:
   i. Formaldehyde emissions from process vent stream (**ID No. VS2A**) shall be controlled with catalytic oxidizer (**ID No. CD-2A**);
   ii. Formaldehyde and phenol emissions from aggregate batch process vent stream (**ID Nos. VS4A.1**) and vent stream (**ID No. VS4A.2**) shall be controlled with thermal oxidizer (**ID No. CD-4A);**
   iii. While being utilized to control emissions, the thermal oxidizer (**ID No. CD-4A)** shall be operated as specified in Section 2.2 A.1.d.iv of this Permit;
   iv. While being utilized to control emissions, the catalytic oxidizer (**ID No. CD-2A**) shall be operated as specified in Section 2.2 A.1.d.iii of this Permit;
   v. The Permittee shall not load aqueous ammonia into storage tank (**ID No. ES-S19**) without controlling the associated emissions with the scrubber tank (**ID No. CD-S19**); and
   vi. While being utilized to control emissions, the scrubber tank (**ID No. CD-S19**) shall be operated such that a minimum liquid level of 56 inches above the tank bottom is maintained.

Monitoring [15A NCAC 02Q .0508(f)]

c. To ensure compliance with the limits in Section 2.2 C.1.a, above, the Permittee shall comply with the following monitoring requirements:
   i. Comply with the monitoring requirements of Sections 2.2 A.1.e.i through 2.2 A.1.e.v, above; and
   ii. Conduct monitoring of the liquid level of the scrubber tank (**ID No. CD-S19**) immediately prior to each filling of the aqueous ammonia storage tank (**ID No. ES-S19**).

Recordkeeping [15A NCAC 02Q .0508(f)]

d. To ensure compliance with the limits in Section 2.2 C.1.a, above, the Permittee shall comply with the following recordkeeping requirements:
   i. Comply with the recordkeeping requirements of Sections 2.2 A.1.f.i, ii, iv and v, above; and
   ii. The results of liquid level monitoring on the scrubber tank (**ID No. CD-S19**) shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall include records of the following:
      (A) The date and time of each recorded action;
      (B) The monitored scrubber tank liquid levels; and
      (C) The results of any maintenance performed on the scrubber tank.

Reporting [15A NCAC 02Q .0508(f)]

e. Within 30 days of a request from the DAQ, the Permittee shall submit a report of any maintenance performed on the scrubber tank (**ID No. CD-S19**), catalytic oxidizer (**ID No. CD-2A**), and/or thermal oxidizer (**ID No. CD-4A**).
f. The Permittee shall perform the following reporting requirements:
   i. Comply with the reporting requirements of Sections 2.2 A.1.g.iv.(A) through (D), above; and
   ii. In the semiannual reports submitted to comply with Section 2.2 C.1.f.i, above, include a summary of the monitoring and recordkeeping activities associated with scrubber tank (**ID No. CD-S19**), and clearly indicate any deviations from the requirements of this permit.

D. Facility-wide affected sources

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2.3- Other Applicable Requirements

A. Sources affected by Section 112(r) of the Clean Air Act

1. 15A NCAC 02D .2100, RISK MANAGEMENT PROGRAM

a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in 15A NCAC 02D .2100, "Risk Management Program," as promulgated in 40 CFR Part 68.

Recordkeeping/Reporting [15A NCAC 02Q .0508(f), 15A NCAC 02Q .0508(h)]

b. The Permittee shall submit an update to the Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.150 no later than December 6, 2018, or as specified in 40 CFR 68.10.
c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 no later than December 6, 2018 and at least every five years after that date or most recent update as required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.
d. When the Permittee submits the Annual Compliance Certification required by General Condition P, the Permittee shall include a statement that the facility is in compliance with all requirements of 15A NCAC 02D .2100, including the registration and submission of the risk management plan.

B. The following compliance assurance monitoring-affected sources:

Continuous process vent stream (ID No. VS5A) comprised of emissions from one spray dry resin production process including
-one natural gas/propane-fired atomizing air heater
-spray dryer
-transfer cyclones
-product bagging operation
with associated bagfilter (ID No. CD-5A)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 02D .0614
Visibility		

1. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

a. In order to assure compliance with 15A NCAC 02D .0515 and .0521, the Permittee shall operate the emission sources with the associated control devices listed in Section 2.3 B.

Monitoring [15A NCAC 02Q .0508(f)]

b. The Permittee shall comply with the monitoring approach as included in the following table:

A. General Criteria		
1. Indicators	1. Pressure drop (ΔP) across bagfilter	2. Visible emissions
2. Measurement Approach	ΔP across the filters is measured hourly with differential pressure gauges	Visible emissions from the emission points of the continuous process vent stream will be monitored once a month using EPA Reference Method 22-like procedures
3. Indicator Range	Excursions trigger an inspection and corrective action. An excursion is defined as:	
	any operating condition where ΔP is greater than 8 inches H_2O.	the presence of visible emissions
4. Quality Improvement Plan (QIP) Threshold	Six excursions within a 6-month period.	Visible emissions for more than 30 minutes 3 times within a 6-month period

B. Performance Criteria		
1. Data Representativeness	Pressure taps are located at the control device inlet and outlet. The gauges have a minimum accuracy of 0.5" H_2O.	Visible emissions measurements are made at the emission points of the control devices
2. QA/QC Practices and Criteria	The pressure gauges are checked daily for operation according to manufacturer's criteria for operation and maintenance.	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
3. Monitoring Frequency	Hourly	Once a month
4. Data Averaging Period	n/a	n/a
5. Data Collection	All readings are recorded hourly	All readings are recorded monthly

Reporting [15A NCAC 02Q .0508(f); 40 CFR 64.9]

d. The Permittee shall submit a summary report of all monitoring and recordkeeping activities postmarked on or before February 15 of each calendar year for the preceding six-month period between July and December and August 15 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
   i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
   ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
   iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY
The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
   The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
   The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
   The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
   The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
   The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements
   Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
   The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
   To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
    a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
        i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
            - name and location of the facility;
            - nature and cause of the malfunction or breakdown;
            - time when the malfunction or breakdown is first observed;
            - expected duration; and
            - estimated rate of emissions;
        ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
        iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
    a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**
The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall

comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History [**15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) –** FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
   a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
   b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
   c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
   d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
   a. a description of the change at the facility;
   b. the date on which the change will occur;
   c. any change in emissions; and
   d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the

application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound